**De Moivre’s Theorem**

**Rule**:

**A proof of sorts**: Consider .

Example 1: Use De Moivre’s Theorem to work out.

Example 2: Instead of using repeated multiplication, use De Moivre’s

Theorem to work out .

* First convert to polar form using Graphics Calculator:
* = Abs = 5.385
* = Arg = 68.2
* Therefore

* Now convert back to rectangular form:

\* Note: The answer in rectangular form should be whole number integers

(having expanded which should not result in decimals), so round

the values of and to whole numbers.

Delta Ex 32.3 pg 296 Q 1, 2. Extension Q 3 – 7.